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MEMORANDUM OF UNDERSTANDING BETWEEN THE EXECUTIVE HEADS OF THE UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP), THE INTERNATIONAL LABOUR ORGANISATION (ILO), AND THE WORLD HEALTH ORGANIZATION (WHO) CONCERNING CO-OPERATION IN THE INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY

At its fifth session, the Governing Council, having considered the report of the sixth session of the Environment Co-ordination Board, requested the Executive Director to "submit agreed memoranda of understanding on joint programming between the Programme and other agencies of the United Nations system to the Governing Council for information and comment". 1/

In accordance with this request, the memorandum of understanding between UNEP, ILO and WHO which was signed on 1 April 1980, is reproduced below.

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*/ Reissued for technical reasons.

1/ Decision 82 (V), sect. III. para. 5.

MEMORANDUM OF UNDERSTANDING BETWEEN THE EXECUTIVE HEADS OF THE UNITED NATIONS ENVIRONMENT PROGRAMME, THE INTERNATIONAL LABOUR ORGANISATION, AND THE WORLD HEALTH ORGANIZATION CONCERNING CO-OPERATION IN THE INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY

PREAMBLE

1. Within the framework of their own respective constitutional mandates the executive heads of the United Nations Environment Programme (UNEP), the International Labour Organisation (ILO) and the World Health Organization (WHO), (hereinafter referred to as the Co-operating Organizations), have agreed to co-operate in the International Programme on Chemical Safety (IPCS) as described in Annex I to this Memorandum.

PRINCIPLES OF CO-OPERATION

2. Under the authority of their respective executive heads, the Co-operating Organizations will actively promote the development of the IPCS through the appropriate channels in Member States. They will endeavour to encourage collaboration at both national and international levels, and will seek to secure support for the IPCS, including the contribution of resources to it.

3. The Co-operating Organizations will endeavour to secure, in the fields of their interest, the participation of specialized institutions as lead or as participating institutions of the IPCS.

4. The Co-operating Organizations shall consult each other on reports on the programme that they may submit to their respective governing bodies.

SCOPE AND STRUCTURE OF THE PROGRAMME

5. The Co-operating Organizations agree that the programme objectives, contents and outputs as outlined in annex I to the present Memorandum shall be expanded whenever necessary. The programme will gradually be broadened to include the effects of chemicals on species other than man, on ecosystems and on natural and man-made resources.

6. The over-all direction of the development and implementation of the programme will be shared in the following manner:

(i) The Programme Advisory Committee, whose functions are described in annex I, will operate in an advisory capacity to the executive heads of the Co-operating Organizations. The terms of reference and the composition of the Committee will be agreed upon by the executive heads.

(ii) The Technical Committee, whose functions are described in annex I, composed of representatives of lead institutions, will operate in an advisory capacity to the Central Unit on the management and operations of the programme.

(iii) The Intersecretariat Co-ordination Committee shall be established in accordance with this Memorandum and will be composed of representatives of the executive heads. Its main functions will be to ensure participation of the parties, and their co-operation; and to review and decide upon proposals and work plans including the substantive and budgetary aspects to be submitted to, or recommended by, the Programme Advisory Committee and the Technical Committee. It will also advise on and keep under review the staffing of the Central Unit.

7. The Central Unit, whose functions are described in annex I, will implement the programme on behalf of the Co-operating Organizations; it will operate under WHO rules and procedures. Its staff will be supplemented as may be required by secondment of national staff and of staff of the Co-operating Organizations. The Central Unit will also draw upon the technical expertise of the Co-operating Organizations in specific programme areas. The head of the Central Unit will be authorized, after consultation with the Co-operating Organizations, to enter into specific agreements with lead and participating institutions regarding the implementation of the IPCS.

AREAS OF SPECIFIC COLLABORATION

8. The areas of specific participation of the Co-operating Organizations, including the provision of resources to IPCS, will be set out in annexes to the present Memorandum, and may be revised from time to time by agreement of the Co-operating Organizations.

ENTRY INTO FORCE

9. This Memorandum shall enter into force upon signature by the authorized representatives of the Co-operating Organizations. Initially this Memorandum will be in force for a period of three years, after which it will be reviewed by the Co-operating Organizations.

10. This Memorandum may be amended at any time by mutual agreement of the Co-operating Organizations, in particular, in order to include other United Nations bodies and organizations with specific interest in chemical safety. Any Co-operating Organization desiring to withdraw from this agreement, may do so six months after notifying in writing the other Co-operating Organizations of its intent.

Done in Vienna, Austria

On 1 April 1980

/signed/	/signed/	/signed/
M. Tolba Executive Director United Nations Environment Programme	F. Blanchard Director-General International Labour Organisation	H. Mahler Director-General World Health Organisation

Annex I

INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY

I. PROGRAMME ELEMENTS

Objectives

1. The principal objectives of the programme would be to:

(a) Carry out and disseminate evaluations of the risk to human health from exposure to chemicals, based on existing information and data;

(b) Encourage the use and improvement, and in some cases the validation, of methods for laboratory testing and epidemiological studies that are suitable for health risk evaluations; and propose appropriate methods for assessing health risks, hazards, benefits and exposure;

(c) Promote effective international co-operation with respect to emergencies and accidents involving chemicals;

(d) Promote technical co-operation among Member States as regards the assessment and control of environmental health hazards that may arise from the production, use and disposal of chemicals, with particular reference to developing countries;

(e) Promote training of the manpower needed for testing and evaluating the health effects of chemicals, and for the regulatory and other control of chemical hazards.

2. Other objectives include the co-ordination of laboratory testing and of epidemiological studies where an international approach is appropriate; and promotion of research to improve the scientific basis for health risk assessment and control of chemical hazards.

3. It should be recognized that environmental factors of physical and biological origin may interact with chemicals and in some cases enhance their effects. Such interactions should be borne in mind when health risks of chemicals are being evaluated.

Components

4. All components needed to meet the objectives listed in paragraphs 1 and 2 would be gradually included in the programme. These components are discussed in detail in the report of the consultation on the implementation of the World Health Assembly resolution WHA 30.47 (document EHE/78.1). An important programme component would be the collection and handling of information and data required for assessment, and close collaboration in this respect is envisaged with UNEP's International Register of Potentially Toxic Chemicals (IRPTC).

Outputs

5. The main outputs of the international programme on chemical safety would include:

(a) Evaluations of the effects of chemicals that are relevant to human health (including special effects such as carcinogenesis, mutagenesis, and teratogenesis, and acute and chronic effects on different organs and organ systems). Such reports might vary in form from comprehensive criteria documents to single sheet reports and risk assessments of new chemicals;

(b) Guidelines on exposure limits, such as acceptable daily intakes for food additives and pesticide residues, and tolerances for toxic substances in food, air, water, soil and the working environment;

(c) Guidelines on appropriate methods for exposure measurement and assessment, toxicity testing, epidemiological and clinical studies, and risk assessment and hazard evaluation;

(d) Information on methods for coping with chemical accidents; case studies of specific past accidents and emergencies; and intervention in emergencies, on request;

(e) Advisory services for technical co-operation, and information on regulatory and other control chemicals, and on other subjects relevant to technical co-operation in this area;

(f) Trained manpower.

A more detailed summary of major outputs planned when the programme is fully operational is shown in appendix I.

Priorities

6. The consultations carried out so far with Member States indicate that the highest priority should be given to the evaluation and dissemination of health risk assessments; co-operation in emergencies and accidents; and manpower development. Other priority components are the promotion of appropriate methodology and technical co-operation in response to specific needs of Member States.

7. The setting of priorities in terms of chemicals to be evaluated in a most urgent task, and should be completed as early as possible in 1979.

II. PROGRAMME IMPLEMENTATION

Guiding principles

8. The proposed international programme on chemical safety is a technical co-operation activity among Member States.

9. The programme should be truly international in scope and a large number of Member States should take part in it. It should take full account of related activities in other international organizations.

10. In order to cover an adequate number of chemicals, to include other programme components, and to increase the output, some functions carried out until now by the WHO secretariat should be decentralized, with specific tasks being assigned to national institutions. The possibility of entrusting certain responsibilities to selected intergovernmental and non-governmental organizations should also be considered.

11. At the same time, it is imperative to make arrangements that will ensure that the programme's outputs conform to the standards of WHO and that confidentiality (where necessary, as regards input information) is assured. Effective mechanisms are therefore needed for co-ordination between national institutions participating in the programme and the WHO secretariat, and between WHO and other international organizations involved in chemical safety activities.

Programme structure

12. The programme structure should be as simple as possible and consistent with the Organization's practice. The programme would consist of the following organizational elements: a programme advisory committee; a WHO central unit; a network of national and other lead institutions; a number of sub-networks of participating institutions; and a technical committee. WHO regional offices would assume a leading role, particularly in the dissemination and application of results, specific technical co-operation activities, and manpower development.

13. The programme advisory committee, composed of a maximum of 15 members and appointed by the Director-General, would advise him on the policy and priorities of the programme, and would develop and review the programme in the light of available resources. The committee should adequately represent the Member States actively participating in the programme. Other international organizations with an active interest in the programme would also be represented. The programme advisory committee would be appointed early in 1979.

14. The WHO central unit would be responsible for the over-all management and coherence of the programme. Its functions would include the following: (a) to develop plans and a programme of work, set the procedures to be followed by network partners, and ensure their timely implementation; (b) to co-ordinate the programme components located in national lead institutions; (c) to ensure liaison with other international organizations;

(d) to undertake review of all programme outputs (evaluations and methodologies) and their approval as scientifically suitable for publication; (e) together with the technical committee, to review, approve and issue priority lists of chemicals for evaluation by lead institutions; (f) to provide the necessary mechanisms for preserving the confidentiality of information when it is needed; (g) to convene expert committees on behalf of the Director-General; (h) to issue selected documents; (i) to develop and co-ordinate response in emergencies; (j) to disseminate information and analyse feedback; (k) to co-ordinate manpower development activities; (l) to assist lead institutions with editing and translation of documents; (m) to provide the secretariat for the programme advisory committee and the technical committee.

15. At present the work related to chemical safety is carried out by a number of different programmes in the WHO secretariat. The implementation of this new programme might be facilitated by integrating the relevant resources.

16. A central unit could be located either entirely at WHO headquarters, or partly there (essentially planning and co-ordination) and partly (technical support activities) in national lead institutions that are willing to accept such responsibilities and to have international staff assigned to them if necessary.

17. A network of national lead institutions responsible for particular programme areas would be established; their technical and co-ordinating functions would include - within the framework of the programme - the collection of information, the preparation of reviews, the convening of meetings of experts to undertake risk assessments, the scientific editing of evaluation reports, and perhaps their publication. These institutions would be designated by the Director-General on the advice of the programme advisory committee, on the basis of internationally recognized expertise and after negotiations with the respective governments to ensure that the necessary commitments and support, including sufficient national staff, would be provided.

18. Although the working arrangements would vary from one lead institution to the next, it is envisaged that in most cases the work of lead institutions would be carried out by a small core group supported actively by the technical staff of the institution. The core groups would carry out the managerial, administrative and secretarial functions required by the international programme, such as liaison with participating institutions and the central unit, organization of meetings of experts for health risk evaluation, and scientific editing. The staff of the core group could be composed of international staff (detached from the WHO central unit for given periods of time), national staff, or both. The regular technical staff of the institution would provide information, prepare draft reports, review reports, and consult on technical matters.

19. A meeting of government representatives held in Geneva in October 1978 identified the major programme areas for which lead institutes would need to be designated (appendix 2). Some of the Member States consulted so far have already proposed national institutions that could take an active part as lead institutions or as participating institutions and have indicated the tasks that could be carried out by these institutions. Others were confident of being able to do so after more information became available.

20. Some international bodies such as IARC and UNEP's International Register of Potentially Toxic Chemicals, or even some non-governmental organizations, might assume the role of lead institutions. This is, however, a subject for further consultation and negotiation.

21. Subnetworks of national or other participating institutions would be established to work with lead institutions. Such subnetworks designated for a particular area of the programme would be guided and co-ordinated by the appropriate lead institution. Participating institutions would be designated by the national focal points in consultation with the WHO central unit, the lead institutions, the technical committee.

22. The technical committee would be set up by the Director-General to advise the central unit on the management and operations of the programme. Its members would consist of representatives of all the lead institutions, and also representatives of IARC, IRPTC and other participants.

23. Member States, whether actively participating in the programme or not, would be requested to designate a national focal point for the programme. The national focal point would serve as technical contact with the WHO central unit concerning all matters under the programme, and would be regularly informed on developments and progress.

24. Technical co-operation on specific problems that may arise in Member States with regard to chemicals, the response to emergencies and accidents, and manpower development are programme components of special interest to Member States, particularly developing countries. It is envisaged that WHO regional offices would take a lead role in regard to these programme components.

Resources and funding

25. A conceptual framework of resource needs and funding mechanisms is illustrated in appendix 3.

26. As shown in appendix 3, resources would be required for (i) staffing and operations of the WHO central unit; (ii) meetings of the programme advisory committee; (iii) meetings of the technical committee; (iv) support to lead institutions; and (v) support to participating institutions. In the case of lead institutions, a distinction has been made in paragraph 18 between two types of activities (core and technical), and thus two types of resource requirements. For the core activity, resources must be clearly identified and made available to cover the costs of staff, meetings, contracts, duty travel and publicat[illegible] The resource

requirements for technical support to the core activities within the lead institutions and for participating institutions would be extremely variable, depending on the specific programmes of work.

27. The annual resource requirements have been provisionally estimated to be in the order of US$2.5 million initially, rising to about US$6.5 million when the programme is fully operational. These estimates do not include the costs for the technical activities of lead or participating institutions in support of the international programme.

28. It is clear that most of the resources required for this programme will need to come from extrabudgetary resources. With this in mind, the proposed funding arrangements are described in paragraphs 29-32 below.

29. The regular budget resources currently used for WHO's activities in this field would be allocated to the programme.

30. UNEP, which currently supports the environmental health criteria programme and related activities, would hopefully continue and, if possible, increase its support.

31. Member States would be invited to contribute to the programme by:

(a) Designating national lead and participating institutions, and providing them with adequate staff and operational resources; and making available the information from and capabilities of relevant national programmes; and/or

(b) Contributing to a voluntary fund to be used to support the work of the WHO central unit, the programme advisory committee, the technical committee, costs of publication, and in some cases the provision of resources to lead institutions.

32. It is envisaged that the resources required by the WHO central unit, the programme advisory committee and the technical committee would need to be funded from the WHO regular budget, the expected continued support by UNEP, and the voluntary fund. The resources required for the core activities of the lead institutions could be provided through a number of mechanisms: (i) by governments directly; (ii) from the voluntary fund; or (iii) by a combination of both. The size of the voluntary fund, therefore, would depend on the arrangements made by the governments in providing resources to their lead institutions.

33. Some Member States have already expressed their willingness, in principle, to provide financial and other support to the programme by contributing to the central fund and by increasing the resources of their lead institutions. Others have agreed in principle to contribute, but some are not prepared to do this yet. Consultations with Member States have made it clear that it would be inappropriate for only a very few countries to contribute the resources for a programme that should be useful to all Member States. The Director-General intends to continue negotiations with Member States on this matter, and will report to the thirty-second World Health Assembly.

Co-ordination with other organizations

34. Since a considerable number of other international organizations, both intergovernmental and non-governmental, are active in areas related to chemical safety, negotiations will be initiated as soon as possible to ensure active collaboration and co-ordination of work within the United Nations family and with other intergovernmental and non-governmental organizations. A description of the activities of the organizations working in this field is given in appendix 4. When the programme is established, co-ordination with other organizations will be one of the main tasks of the programme advisory committee, and, on a day-to-day basis, of the WHO central unit.

III. CONCLUSIONS AND PROPOSALS FOR FURTHER ACTION

35. Consultations with Member States carried out so far have shown interest and agreement, in general, as regards the concepts, content and structure of the proposed international programme. There is no reason now to assume that subsequent consultations will change the basic framework of the programme; they should, however, add to the offers of candidate institutions and financial contributions. The following proposals are therefore considered ready and timely for submission to the Executive Board with the aim of starting the programme no later than 1980.

36. After consideration of the proposed programme by the Board it is intended that during 1979, the preparatory year:

(a) Formal negotiations will be held with the Governments consulted so far in order to pinpoint candidate lead institutions and financial arrangements;

(b) Negotiations will also be held with additional Member States to explore their interest, willingness to participate actively, and possibilities of contributing financial and other resources. If necessary, another meeting with government representatives will be convened early in 1979;

(c) Negotiations will be held with other international organizations to ensure their collaboration, the co-ordination of effort, and avoidance of unnecessary duplication;

(d) Existing information will be updated and reported to the thirty-second World Health Assembly;

(e) The programme advisory committee will be established and convened by mid-1979; the committee's first functions will be to make recommendations as regards the selection of lead institutions and the determination of priorities;

(f) The Director-General will begin to designate lead institutions as outlined in paragraph 17;

(g) The technical committee will be established and convened in order to prepare the plan of work for 1980-1981 and begin the selection of participating institutions;

(h) A WHO central unit will be established, using and incorporating existing resources devoted to the activities related to chemical safety;

(i) The WHO and ICSU/SCOPE co-sponsored scientific group on methodologies will be organized, ensuring that it has a proper role within the programme.

Appendix I

SUMMARY OF MAJOR OUTPUTS WHEN THE PROGRAMME IS FULLY OPERATIONAL

Tasks	Outputs
1. Collection of information and data required for assessment	- Lists of references - Copies of articles and reprints
2. Priority setting for evaluation and/or further studies	- Priority lists for evaluation as needed - Priority lists for further studies issued periodically - Inventory of ongoing work
3. Risk evaluation and guidelines on exposure limits:	
(a) Comprehensive evaluation of the effects of major environmental chemicals (criteria documents)	- 30 criteria documents annually
(b) Evaluations of extensively used chemicals for which substantial data exist	- Monographs on risk assessment for 200 chemicals annually
(c) Review of chemicals for which data are limited	- Single sheet reports on risk assessment for 200-500 chemicals annually
(d) Evaluation of new chemicals	- Monographs on risk assessment for 200 chemicals annually
(e) Dissemination of risk assessments	- Distribution of monographs and allied information to focal points, and obtaining feedback
4. Promotion of appropriate methodology	- 3 or 4 guideline documents annually
5. Response in emergencies	- Maintenance of a central referral system - Immediate assistance in emergencies (consultant analysis, preliminary testing, etc.) - Guideline documents including emergency measures for highly toxic chemicals
6. Manpower development and technical co-operation	- Fellowships - Training courses - Advisory services

Appendix 2

TASKS TO BE ASSIGNED TO LEAD INSTITUTIONS

1. Risk assessment of chemicals

   1.1 Household products, i.e., products sold to the general public for use in and around the home (e.g., paints, cleaning agents)

   1.2 Contaminants, including metals occurring inadvertently in various media - air, water, food

   1.3 Cosmetics

   1.4 Food additives (flavouring agents, processing aids, feed additives)

   1.5 Industrial chemicals

   1.6 Toxic substances of natural origin

   1.7 Plastics and packaging materials

   1.8 Pesticides

2. Evaluation of specific toxicological effects and elaboration or updating of methodology

   2.1 Short-term toxicity

   2.2 Long-term toxicity

   2.3 Carcinogenicity

   2.4 Mutagenicity and pre-screening tests for carcinogenicity

   2.5 Teratogenicity

   2.6 Epidemiology

3. Other tasks

   3.1 Data collection

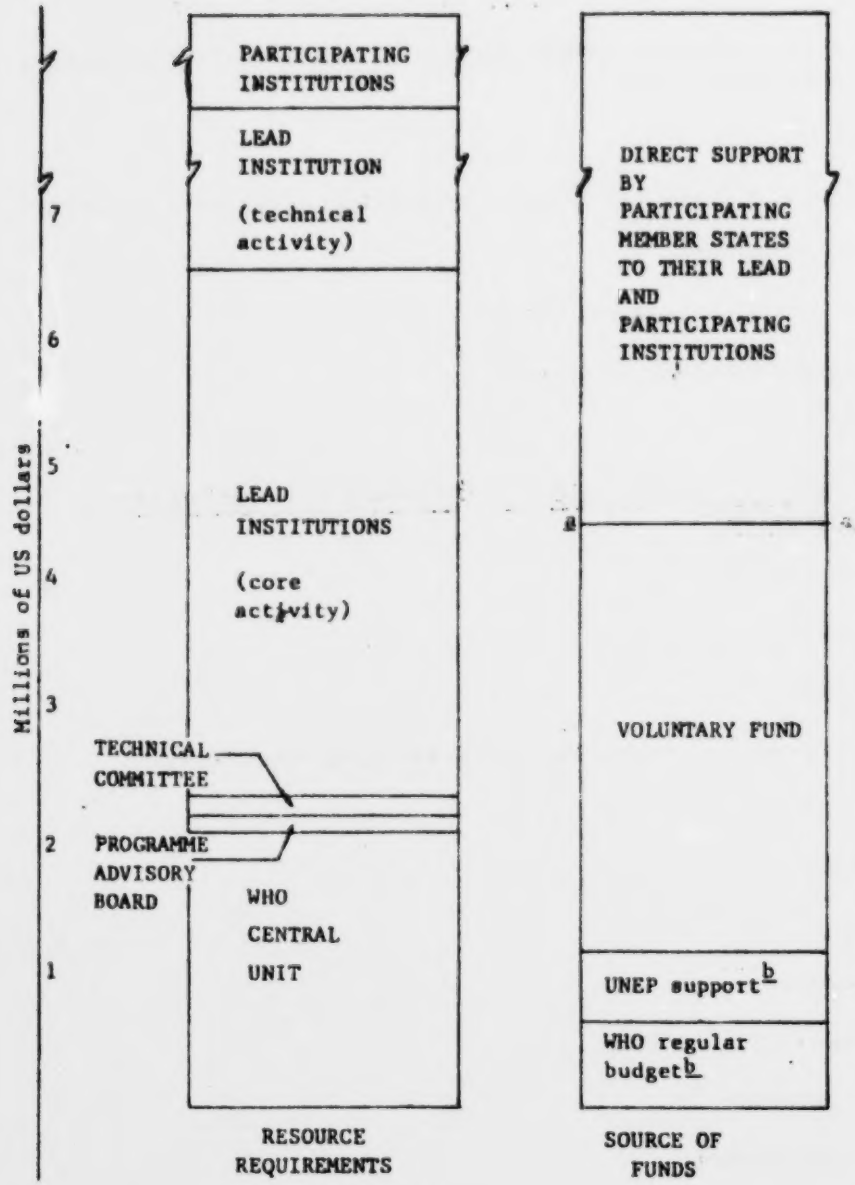
   3.2 Establishment of priorities

   3.3 Emergency response

   3.4 Manpower development

Appendix 3

CONCEPTUAL FRAMEWORK OF RESOURCE NEEDS AND FUNDING MECHANISMS FOR THE INTERNATIONAL PROGRAMME ON CHEMICAL SAFETY (YEAR 4)



a/ The size of the voluntary fund (line a——a) will depend on the arrangements made participating Member States for supporting their lead institutions.

b/ Current level of support (see paragraphs 29 and 30).

Appendix 4

CURRENT INTERNATIONAL PROGRAMMES AND ACTIVITIES

I. WHO programmes and activities

1. In the belief that evaluation of the health effects of chemicals is one of the essential bases for planning and implementing national environmental health programmes, WHO has given considerable attention to this subject during the last two decades. Annual meetings of the Joint FAO/WHO Expert Committee on Food Additives and Contaminants have been convened since 1956. The Joint FAO/WHO meetings on pesticide residues in food have been held regularly since 1961. A programme is also in progress on the evaluation of new insecticides for the control of vectors of disease and, jointly with FAO, for the preparation of data sheets on pesticides providing basic information on their safe use (about 20 compounds covered so far). A classification of pesticides by hazard was adopted by the twenty-eighth World Health Assembly in 1975 (resolution WHA28.62). The Joint ILO/WHO Committee on Occupational Health, in its sixth report (1969), evaluated recommendations and standards for occupational exposure to airborne toxic substances 1/. More recently (1977) a programme was initiated on internationally recommended permissible levels in occupational exposure to harmful agents. The International Standards for Drinking-Water were first published in 1958, revised in 1963 and again in 1970, 2/ and yet another version is planned for 1980. Several expert committees on air pollution were convened between 1957 and 1972, while a programme of the International Agency for Research on Cancer on evaluation of the carcinogenic risk of chemicals to man has been in progress since 1971.

2. In most of these activities, however, total exposure to a given toxic agent from various media (air, water, food, work, home) was not considered. The inadequacy of this approach is evident in the case of substances that are distributed through several media or used for different purposes. For this reason, an integrated and expanded programme on health risk evaluation was initiated in 1973 in collaboration with more than 20 Member States and with the support of UNEP. This "environmental health criteria" programme aims at assessing existing information on the relationship between exposure to environmental agents and human health, and at providing guidelines for setting exposure limits consistent with health protection. It also aims at identifying new or potential chemical hazards by preliminary reviews of chemicals and other agents likely to be used increasingly in industry and agriculture, or at home. Other objectives of the programme are to identify gaps in knowledge, and to promote research and the harmonization of toxicological and epidemiological methods.

3. Adverse reactions to drugs have also been given considerable attention. The WHO drug monitoring programme receives monthly reports on suspected adverse reactions to drugs from 22 national monitoring centres. These data are processed by a WHO collaborating centre in Sweden and periodically

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1/ WHO Technical Report Series, No. 415, 1969.

2/ World Health Organization. International standards for drinking-water, 3rd ed., Geneva, 1971.

evaluated to assess trends in the pattern of reports received, and to identify possible new and hitherto unsuspected reactions.

4. Work on the assessment of levels of chemicals in air, water and food has been initiated within the Global Environmental Monitoring System, and strongly supported by UNEP. A new component (biological monitoring) has recently been added to other health-related monitoring activities.

5. The promotion of appropriate methods for the evaluation of effects on health has been an essential component of practically all the above-mentioned WHO activities. This has resulted, in the last 20 years, in a number of technical reports and guidelines on the general principles and methods of testing and evaluating food additives and contaminants; on evaluating teratogenicity, mutagenicity and carcinogenicity; and, more recently, on environmental and health monitoring, early detection of health impairment in occupational health, chemical and biochemical methods for assessing the hazard of pesticides to man, and the methods used in establishing permissible levels of occupational exposure. In addition, in connexion with the environmental health criteria programme, a monograph on the principles and methods for evaluating the toxicity of chemicals is now being completed (Part I has been published), 3/ while a similar monograph on epidemiological methods for investigating the health effects of environmental agents is in preparation, in collaboration with the International Epidemiological Association.

6. In addition to the global activities described above, the WHO regional offices, particularly in Europe and the Americas, have paid increasing attention to the problem of hazardous chemicals. The Regional Office for Europe, for example, has developed European Standards for Drinking-Water, 4/ and has issued a number of reports on toxic substances in the environment. That Regional Office is also in charge of the Organization's programme on accident prevention, including chemical accidents.

2. Other international programmes and activities

7. Many international (governmental and non-governmental) organizations are active in the field of hazardous chemicals; some of their programmes are briefly outlined below.

(a) The United Nations system

8. Within the United Nations system, ILO and FAO have the longest tradition in this field - ILO as regards occupational chemical hazards, and FAO as regards food contaminants and additives, and various agricultural chemicals. More recently, FAO has been working towards the establishment of criteria on the ecological effects of chemicals. UNEP,

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3/ World Health Organization. Principles and methods for evaluating the toxicity of chemicals, Part I, Geneva, 1978 (Environmental health criteria 6).

4/ World Health Organization. European standards for drinking-water, 2nd ed., Geneva, 1970.

with its programme on human and environmental health, has been effectively supporting several WHO, FAO, UNESCO and WMO projects concerned with the adverse effects of chemicals. UNESCO's particular interest concerns the ecological effects of chemicals and relevant activities are included in its "Man and the biosphere" programme. The International Atomic Energy Agency (IAEA) has paid particular attention to the use of nuclear techniques in the study of environmental pollution, and the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) has recently initiated the preparation of criteria documents on radionuclides. The United Nations regional economic commissions have also launched a number of activities in this area, particularly the Economic Commission for Europe (ECE); for example, senior advisers to the ECE Governments on environmental problems have discussed, at several meetings, methods and approaches for controlling the flow of toxic substances throughout the environment, and a United Nations Committee of Experts on the Transport of Dangerous Goods recently published recommendations on this problem. UNDP has supported a large number of national projects concerned with environmental pollution control and occupational health. Toxic substances in the marine environment have been the concern of several United Nations bodies, particularly the United Nations itself, IMCO, FAO, UNESCO, IAEA, WHO, WMO and UNEP, i.e. the sponsoring agencies of the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP). An International Register of Potentially Toxic Substances was recently established by UNEP; located in WHO premises at Geneva, the IRPTC works closely with other relevant national and international agencies. UNEP's Programme Activity Centre on Gobal Environmental Monitoring has been instrumental in developing more systematic approaches in the surveillance of environmental chemicals. International projects on the impact of chemicals on global and local climate have been initiated jointly by WMO and UNEP (e.g. the ozone layer problem) and WMO has a long record of activity as regards atmospheric chemistry and the effects of environmental pollution on agriculture. This summary is by no means exhaustive. Several less extensive, but nevertheless significant international activities concerning toxic chemicals have also been carried out by other United Nations bodies, such as the Department of Economic and Social Affairs, the United Nations Industrial Development Organization (UNIDO), the United Nations Fund for Drug Abuse Control (UNFDAC), and the United Nations Institute for Training and Research (UNITAR).

(b) Other intergovernmental organizations

9. Extensive programmes on environmental chemicals are being carried out by the Organization for Economic Co-operation and Development (OECD), the Council for Mutual Economic Assistance (CMEA), the Commission of the European Communities (CEC) and the Council of Europe. These programmes are oriented towards the economic or legal aspects of the subject and tend to be restricted to regional problems or to problems peculiar to a limited number of countries. They are nevertheless very significant, because the Member States of these organizations are major producers

and exporters of chemicals, and since decision-making depends on hazard evaluation, these programmes are concerned with the health and environmental effects of chemicals, even though this is not their main objective.

10. OECD has been concerned with chemicals for the last eight years. A Chemical Group was set up early in the life of the OECD Environment Committee and has been concerned, for example, with pesticides, toxic metals, PCBs and fluorocarbons. In 1973, the OECD Council established a notification for controlling substances affecting man and his environment. More recently, the Chemical Group has been focusing on the assessment of chemicals before they are put on the market, and a chemicals testing programme, to harmonize test methods and systems, was established in 1977.

11. CMEA member countries and Yugoslavia have completed about 200 projects concerning environmental protection; many of these projects concerned chemicals, and covered harmonization of methods and socioeconomic, health and ecological aspects of environmental protection.

12. The work of the Council of Europe has centred on legal problems and conventions that cover, among other things, environmental protection from chemicals.

13. The Commission of the European Communities has an extensive programme on chemicals that covers practically every aspect of the problem (environmental pollution, the working environment, food, drinking-water, hazardous chemicals, and environmental and health monitoring). This work is largely based on the CEC programme of action on the environment of 1973. A special feature of the CEC activities is that the directives of the Council are, under certain conditions, binding on the Member countries, so that the environment policy of the CEC provides for co-ordinated and harmonious progress of national programmes.

(c) Non-governmental organizations

14. Many non-governmental organizations (those in official relations with WHO and others) are concerned with chemicals, and it will only be possible to mention a few in this report. Their work complements and contributes greatly to that of the intergovernmental organizations, particularly as regards the scientific and technical aspects of the problem, for they suffer fewer administrative constraints than the governmental organizations. On the other hand, they are subject to severe financial limitations.

15. As regards health effects evaluation, WHO has established effective working relationships, for example, with the International Council of Scientific Unions (ICSU) and particularly its Scientific Committee on Problems of the Environment (SCOPE); the International Union of Pure and Applied Chemistry (IUPAC); the International Epidemiological Association (IEA); the International Association on Water Pollution Research (IAWPR); the Permanent Commission and International Association on Occupational

Health; the International Union of Pharmacology (IUPHAR); the World Federation of Poison Control Centres; the International Association of Environmental Mutagen Societies; and the International Organization for Standardization (ISO). There is, of course, scope for a much greater contribution from the non-governmental organizations, but appropriate forms of co-operation have still to be found.

3. Industry

16. A considerable number of international industrial associations are concerned with chemicals and environmental pollution, though only one of them, the International Federation of Pharmaceutical Manufacturers Associations (IFPMA), has the status of a non-governmental organization in official relations with WHO. Working relations have, however, been established with several industrial associations - e.g., the Groupement international des associations nationales de fabricants de pesticides (GIFAP), the International Petroleum Industry Environmental Conservation Association (IPIECA), the International Iron and Steel Institute (IISI), and the International Lead and Zinc Research Organization - which have provided valuable contributions to WHO programmes concerned with the evaluation of chemicals. In addition, WHO has maintained contacts with a number of national industrial organizations, e.g. the British Industrial Biological Research Association, and with individual industries, particularly in the field of food additives and pesticides. There is, however, a feeling both within industry and in WHO that the contribution of industry is not as systematic and as effective as it could be, and a major effort to improve this situation has recently been made by the International Centre for Industry and the Environment (ICIE), the membership of which includes various types of industries and industrial associations.